AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/DE 2004/001199 filed on June 9, 2004.

[0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0001] with the following amended paragraph:

[0001] ~~Prior Art~~ **Field of the Invention**

Please replace paragraph [0002] with the following amended paragraph:

[0002] The present invention is ~~based on~~ **directed to an improved** a fuel injection apparatus ~~as generically defined by the preamble to claim 1~~ **for use in an internal combustion engine**.

Please add the following new paragraph after paragraph [0002]:

[0002.5] Description of the Prior Art

Please replace paragraph [0003] with the following amended paragraph:

[0003] A CR injector (CR = common rail) with a piezoelectric actuator and boosting by means of a hydraulic coupler is known. There are also known integrated couplers with pistons guided coaxially one inside the other. The known apparatus uses an [[O]] **outward close (O)** valve as a control valve. Because of possible cavitation, this valve must be produced with a particular shape, is expensive, and can only be embodied with a relatively small diameter since otherwise, the forces acting on the valve become too great for an actuation by means of a piezoelectric actuator.

Please replace paragraph [0004] with the following amended paragraph:

[0004] ~~Advantages of the Invention~~

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0005] with the following amended paragraph:

[0005] The fuel injection apparatus for internal combustion engines according to present invention[[,]] ~~with the characterizing features of claim 1,~~ has the advantage over the prior art that it creates a CR injector with a piezoelectric actuator in which the valve can have a large cross section and is embodied as an [[I]] **inward close (I)** valve. As a result, the opening and closing of the injection valve can occur more rapidly. The integrated coupler makes it possible to provide a short overall length for the apparatus. The coupler is assisted by CR pressure.

Page 2, please replace paragraph [0006] with the following amended paragraph:

[0006] ~~Drawing~~ **BRIEF DESCRIPTION OF THE DRAWING**

Please replace paragraph [0007] with the following amended paragraph:

[0007] An exemplary embodiment of the fuel injection apparatus according to present invention ~~is shown in the drawing and will be~~ explained in greater detail **herein** ~~in the description~~ below**, in conjunction with the sole drawing figure, which schematically figure shows the essential components of a fuel injection apparatus according to present invention, having an injection valve and a control valve as well as a hydraulic coupler.**

Please delete paragraph [0008].

Please replace paragraph [0009] with the following amended paragraph:

[0009] ~~Description of the Exemplary Embodiments~~

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please replace paragraph [0010] with the following amended paragraph:

[0010] The fuel injection apparatus [[1]] according to present invention is supplied with highly pressurized fuel from a pressure reservoir (common rail) 3 via a high-pressure line 5 from which fuel travels via an injection line 6 to an injection valve 9. An internal combustion engine usually has a number of such injection valves, but for the sake of simplicity only one of them is shown. The injection valve 9 has a valve needle (valve piston, nozzle needle) 11 whose conical valve sealing surface 12, when in its closed position, closes injection openings 13 through which fuel is to be injected into the interior of a combustion chamber of [[the]] **an internal combustion** engine. The fuel travels into the region of the nozzle needle via an annular nozzle chamber 14 from which it is able to exert a pressure in the opening direction of the nozzle needle by means of a control surface 15 embodied in the form of a pressure shoulder. When this pressure exerts a force on the needle in the opening direction that exceeds the forces counteracting this opening, then the valve opens.

Page 4, please replace paragraph [0013] with the following amended paragraph:

[0013] The pistons 39 and 40 in the example are situated parallel to each other and one inside the other in a coaxial orientation that is advantageous from a production engineering standpoint (integrated coupler). The manner in which they are coupled to each other will be explained below. An arrow is drawn inside the piston 39 and indicates the movement of this

3piston when the actuator executes a movement in the ~~downward~~ **upward** direction in the drawing. An arrow is drawn inside the piston 40 and indicates the movement of this piston when the piston 39 executes the movement indicated by its arrow. By comparing the arrow of the piston 40 to the direction in which the movable valve member of the valve to be actuated by the hydraulic converter 38 must be moved in order to open or close, it is immediately clear from the drawing whether the above-mentioned arrows in the drawing correspond to an opening motion or a closing motion of the above-mentioned valve.

Page 6, please replace paragraph [0017] with the following amended paragraph:

[0017] Guidance gaps 65 and 67, which serve to guide the pistons in a sliding fashion and through which a coupler volume **in booster chamber 72** is filled with fuel, are embodied in the region of the cylindrical outer surface of the outer piston (in relation to a housing not shown) and in the region of the reciprocal sliding guidance between the two pistons.

Please replace paragraph [0018] with the following amended paragraph:

[0018] The above-mentioned area f2 as well as the areas f1 and f3 through f5 that correspond to the above-mentioned diameters **d-1, d-3, d-4 and d-5** (for circular cross sections) are decisive for the function. Circular cross sections are in fact useful from a manufacturing standpoint, but the invention is not limited to them.

Please replace paragraph [0019] with the following amended paragraph:

[0019] The end regions of the pistons 39 and 40 oriented toward the actuator 31 engage [[a]] **the** shared booster chamber 72. The other end of the piston 39 engages a filling chamber

71-2 that is connected via bores in the bottom end wall of the piston 40 **to a filling chamber 71-1**, which is connected to the line 5. The other end region of the inner piston 40 protrudes into the filling chamber 71-2. The booster chamber 72 is filled via the guidance gaps 65 and 67. The rod 61 passes through the booster chamber 72. The rod 63 passes through the filling chamber 71-1. The pistons 39 and 40 move in opposite directions and, because of the boosting of the desired travel distance, move away from the actuator and toward the control valve at different speeds.

Please replace paragraph [0020] with the following amended paragraph:

[0020] In the closed state of the injection valve 9, the actuator 31 (piezoelectric actuator) is without current and shortened. In order to open the control valve 41, the electrical current to the actuator 31 is switched on and the actuator becomes longer. This moves the piston 39 (first booster piston) downward in the drawing. In the idle state, CR pressure ~~(= pressure in the pressure accumulator or common rail)~~ prevails as the system pressure in the booster chamber 72 and in the filling chamber 71-2. The downward movement of the piston 39 reduces the pressure in the booster chamber 72. This pressure decrease moves the piston 40 (second booster piston) upward and, through a movement of the valve member 51 in the same direction, opens the control valve 41, which is an I valve. For particularly rapid opening of the valve member 51, in some embodiment forms of the present invention, this valve member 51 can be attached to the rod 63 and therefore to the piston 40. Due to the CR pressure in the booster chamber 72, the seat diameter d3 of the valve member 51 can be selected to be very large since the piston 40 largely compensates for this area with its end situated in the booster chamber 72. When the valve 41 closes, the upward movement of the piston 39 is assisted by

the spring 75 and by the pressure in the filling chamber 71-2. The present invention consequently creates an advantageous I valve servo injector with CR pressure assistance for very rapid opening and closing of the injection valve. The coaxial coupler yields a short overall length.

Page 7, please replace paragraph [0022] with the following amended paragraph:

[0022] Because of the rail pressure in the booster chamber 72, the diameter d3 is largely force-balanced. In comparison to the prior art, therefore, there is a greater excess of actuator-generated force available for accelerating the mass of the movable valve member. The present invention consequently creates a variant having a partially balanced control valve ([[=]] **i.e.,** partially balanced in terms of the force) in which the valve is an I valve. This means that the actuator does not have to supply as powerful a force as in the prior art in order to close the valve. In lieu of this, one embodiment form has a valve 51 with a diameter d3 larger than in the known one, which permits a more rapid opening and closing of the injection valve because the flow intake and output are greater in it than in the smaller O valve known from the prior art. A compression spring 75 in the filling chamber 71-2 pushes the pistons away from each other and assures a good contact of the coupler against the actuator 31 and, when the valve is closed, assures a good contact of the valve member 51 against the valve seat 53.

Page 9, please add the following new paragraph after paragraph [0025]:

[0026] The foregoing relates to preferred exemplary embodiments of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.